BUKHMAN, Yakov Zekharovich; MOLOTKOV, Pavel Georgiyevich; YEROKIN, G.M., red. izd-va; IL'INSKAYA, G.M., tekhn. red.

[Mine brattices]Shakhtnye peremychki. Moskva, Gosgortekhizdat, 1962. 154 p. (MIRA 15:9) (Mining engineering—Equipment and supplies)

#### BUKHMAN, Ya.Z.

Improving the control of the gas component of mine air. Gor. zhur. no.6:72-73 Je '62. (MIRA 15:11)

1. Voyenizirovannaya gornospasatel'naya chast' Sverdlovskogo soveta narodnogo khozyaystva. (Mine gases)

BUKHMAN, Yakov Zakharovich; VERNIGOR, P.I., retsenzent; PODVYSOTSKIY, K.S., retsenzent; BAZHANOV, T.A., red.; SKOROBOGACHEVA, A.P., red. izd-wa; MATLYUK, R.M., tekhn. red.

[Safety measures in the handling of games] Gazospasatel'noe delo. Moskva, Metallurgizdat, 1963. 256 p. (MIRA 16:7) (Gases—Safety measures)

## BUKHMAN, Ya.Z.

Calculation of mine ventilation according to the oxygen factor.

Gor, zhur. no.4:72-74 Ap '64. (MIRA 17:4)

1. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut mednoy promyshlennosti.

BUKHMAN, Ya.Z.; MUTAYEV, R.S.; BIKCHENTAYEV, G.K.; SIMAKOV, P.G.; GALKIN, A.M.

Improvement of working conditions in strip mines. Bezop.truda v
prom. 9 no.4:15-16 Ap 165. (MIRA 18:5)

BUKHMAN, Yo.K. insh.

Causes of self-ignitions and explosions in pneumatic systems.

Khim. mash. no.2:46-47 Mr-Ap '59. (MIRA 12:7)

(Compressed mir-Safety measures)

**26.212**0 5.1400 S/184/61/000/002/008/008 A110/A033

AUTHOR:

Bukhman, Ye. K., Engineer

TITLE:

Carbon graphites and their utilization in compressor construction

PERIODICAL:

Khimicheskoye Mashinostroyeniye, no. 2, 1961, 47

TEXT: This article is a condensed report paper on the articles of the "Trockenlauf Kolbenverdichter", VDI-Zeitschrift, 1959, vol. 101; 1) Kemmann, A., Trockenlauf-Kolbenverdichter fuer Luft und andere Gase, no. 2, s. 479 - 481; 2) Wiemer, H., Gilbert, E., Kunstkohle als Gleitwerkstoff und ihre industrielle Verwendung, No. 15, s. 596 - 603; 3) Weis, E., Versuche ueber den Einfluss extrem trockener Gase auf die Stauzeit von Trockenlaufwerkstoffen in Kolbenverdichtern, No. 19, s. 777 - 788, and states that, while the use graphite seals in compressors processing humid gases can be considered as being solved, the serviceability of graphite in dry gases, especially in oxygen was never properly investigated, although a lower service life was assumed. The described tests were carried out on vertical, dual-action crosshead compressors in actual operating conditions in order to determine the wear resistance of graphite in dry gases particularly in oxygen. The said compressors were parts of an installation for the production Card 1/4

Carbon graphites and their utilization ....

S/184/61/000/002/008/008 A110/A033

of protective gas, i.e., 90 % nitrogen, 10 % hydrogen. The hydrazoic mixture derived by dissociation of ammonia, had a dew point of - 50° and was diluted by nitrogen with a dew point -1000 from the air-fractionating apparatus. Oxygen of 92 % purity and of an analogous dew point was the by-product. The humidity of the protective gas corresponded to a dew point of -700. The capacity of compressors was 30 and 60 nm3/h at 7 atm pressure. The diameter of cylinders was 145 and 180 mm and the respective piston velocity at 300 rpm, 0.85 and 1 m/sec. The initial results showed an extremely low wear resistance of graphite materials. Satisfactory results were obtained only in respect of solid carbon materials saturated with white metal (lead, antimony and tin alloy), after preliminary processing of the cylinder surface with soft graphite and molybdenum disulfide. The characteristics of this carbon material are as follows: q = 2.4;  $6_{\text{bend}} = 750 \text{ kg/cm}^2$ ;  $6_{\text{compr}} = 2.500 \text{ kg/cm}^2$ ;  $E = 0.135.10 \text{ kg/cm}^2$ ; shore hardness 85; thermostability + 200°C. [Abstractor's note: designations bend (bending) and compr (compression) are translations from the Russian W3F (izgib) and CM (szhatiye)] Molybdenum disulfide powder was rubbed onto the operating surface once a year (after 5 - 6000 hours) and after cleaning the cylinder with gasoline. The wear resistance improved correspondingly to the increased humidity of the compressed gas, but the abrasion

Card 2/4

Carbon graphites and their utilization ...

s/184/61/000/002/008/008 A110/A033

factor in oxygen was higher than in nitrogen of analogous humidity. The highest degree of wear was observed on the upper piston ring; attempts to achieve uniform abrasion of spring and split rings failed. Under the effect of dry, compressed gas, the packing rings proved of similar wear resistance as piston rings, contact with the atmosphere increased their wear-resistance. In connection with the research as to the possibility of hydrogen compression, it was necessary to establish whether or not the abrasion of ring material tended to form explosive compounds. For this purpose graphite was powdered into grains of 40 \$\mu\$ and tested as to inflammability in an oxygen current at atmospheric pressure and in a tank with compressed oxygen. Some specimens were enriched by the addition of white metal, corresponding in quantity to the usual impregnation. The ignition point of pure graphite powder in an oxygen current was determined according to ASTM and proved to be 485°C; the ignition point of graphite and white metal was 450°C. In the oxygen-filled cylinder, at a pressure of 6 atm the ignition point was 425°C, An increase in pressure to 10 atm, and the addition of white metal had no detrimental effect. The explosion occurred when the powder content had reached 160 -220 g/mm<sup>3</sup>, however, in practice such concentration is hardly feasible, as the average abrasion during tests produced only 0.8 mg/mm3. The inflammability of carbon material was also tested by compression impetus in oxygen at 1 atm. and Card 3/4

S/184/61/000/002/008/008 A110/A033

Carbon graphites and their utilization ....

60°C. Unsaturated carbon was ignited at 150 atm. and impregnated with white metal at 100 atm. These results prove the absolute safety of graphite in oxygen medium. It was further established that cylinders and rods need not be made of non-ferrous metals and stainless steel. Special anti-corrosion protection of fixtures, etc. is also superfluous. The tests revealed that carbon graphites are, of course, inferior to metal and they should be used only in the case of ordinary oil or consistent lubricants. Tests being sinadmissible on bearings revealed that the use of liquid lubricants (except oil which forms aglutinant compounds with graphite) improve the wear resistance of carbon graphite materials 3 - 5 times and double their load capacity. Despite their inferior wear resistance and antifriction properties, unsaturated, light-weight, solid carbon materials are recommended for plates of rotary compressors operating at 3 - 5 atm. H. Wiemer and E. Gilbert (Ref. 2: "Synthetic coal and its Use in the Industry", no. 15, 596 - 603) gives classified recommendations for individual constructions of carbon graphite materials, which should be observed in view of their low temperature expansion coefficient and brittleness. There are 3 non-Soviet references.

Card 4/4

BARSKIY, I.Ya.; BRUHBERG, Ye.M.; BUKHMAN, Ye.M.; VASILEVSKAYA, V.K.; PLUZHNIKOYA, G.Y.

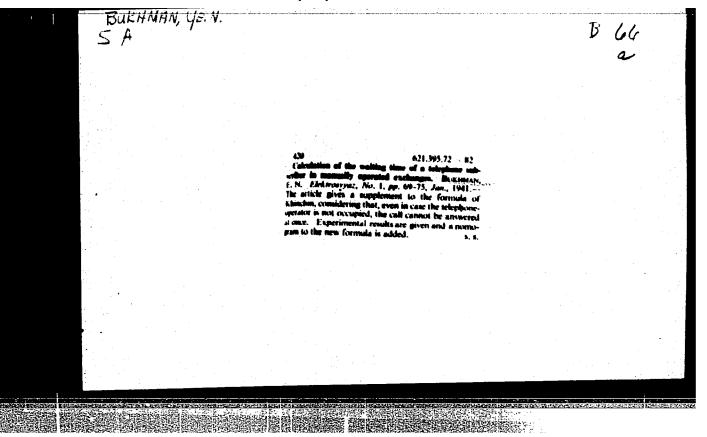
Use of ultraviolet fluorescence microscopy in the study of botanical objects. Bot.zhur. 44 no.5:639-642 My 59. (MIRA 12:11)

1. Botanicheskiy institut im. V.L. Komprova AN SSSR i Leningradskiy gosuniversitet.
(Botanical research) (Fluorescence microscopy) (Photomicrography)

#### BUKHMAN, YE. N.

K probleme skuchennosti. Prikl. Matem. 1 mekh., 3-4 (1939) Problemy skuchenosti v telefonii. Prikl. Matem. 1 mekh., 6 (1942), 247-256.

SO: Mathematics in the USSR, 1917-1947
edited by Kurosh, A.G.,
Markushevich, A.I.,
Rashevskiy, P.K.
Moscow-Leningrad, 1948



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	Buchman, E. N. The problem of waiting time. Akad.
40.0	Nauk SSSR, Prikl, Mat. Meh. 11, 475-484 (1947).
	(Russian. English summary)
394	The paper is devoted to the problem of waiting times when k lines (counters) serve a traine obeying a Poisson
	law. It is claimed that the analysis holds for arbitrary
	holding times, that is, also for non-Markov processes Ac-
	tually many assumptions are tacitly made which invalidate the analysis at least in its generality.  W. Feller.
	Source: Nathematical Reviews, 1949, Vol 9, No. 4
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BUKHMAN, E.

"An Account of the Volume of Work in the Communications Economy," E Bukhman, 5 pp

"Vestnik Svyazi" Vol 7, No 85

Statistical tables and graphs cover period from 1913 to 1940.

2129

BURHMAN Ye. N.

#### USSR/Mathematics - Statistics

Jan/Feb 52

"Calculation of Selection Volume During Determination of Average Values of Statistical Characteristics by Computational Means," Ye. N. Bukhman, Moscow

"Prik Matemat i Mekh" Vol XVI, No 1, pp 79-84

Attempts to det the least number of observations necessary to obtain high probability within given tolerances. The most general soln was obtained by Liapounoff. Gives computational examples. Submitted 12 Jul 51.

203159

BUKHMAN, Ye.N. (Moskva).

Computation method of municipal transport rolling stock. Inzh.
sbor. 16:213-218 '53. (MLRA 7:3)
(Street railroads) (Traffic engineering)

112-57-7-15920

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1957, Nr 7, pp 298-299 (USSR)

AUTHOR: Bukhman, Ye. N., and Kuznetsova, M. V.

TITLE: Statistical Study of Telephone Traffic Used in Designing Dial Telephone Offices (Statisticheskoye izucheniye telefonnoy nagruzki pri proyektirovanii avtomaticheskikh telefonnykh stantsiy)

PERIODICAL: Uch. zap. po statist., 1956, Nr 2, pp 263-270

ABSTRACT: In constructing new dial-telephone offices, high quality of service and minimum construction expenditures can be attained only through correct equipment design. Telephone traffic fluctuates, depending on the season, time of day, and chance factors.

The Erlang tables have been used to determine random fluctuations of traffic caused by independent actions of subscribers. In addition to random fluctuations, it is necessary to allow for irregular fluctuations observed during political campaigns (elections, subscriptions to loans, etc.) and national holidays. The effect of irregular fluctuations of telephone traffic is particularly pronounced in the case of large trunk groups connected so that all lines of the

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112-57-7-15920

Statistical Study of Telephone Traffic Used in Designing Dial Telephone Offices group are accessible to every party. One of the factors influencing the traffic fluctuations is the concentration of a great number of calls around a certain group of parties (recording board, information, etc.). With all correction factors introduced, the final formula for estimated traffic at a dial telephone office is:  $Y_{ebh} = Y_{day} \cdot K_{bh} H (1 + \alpha v_{day}) \left(1 + \frac{\alpha v_{s}}{\sqrt{n}}\right), \text{ where } Y_{ebh} \text{ is an estimated value of traffic during the busy hour; } Y_{day} \text{ is an average actual traffic over one full day obtained by the random method; } H \text{ is a seasonal coefficient of of the traffic; } K_{bh} \text{ is the coefficient of diurnal concentration of traffic; } (1 + \alpha v_{day}) \text{ is a coefficient allowing for irregular fluctuations } (\alpha = 1 \text{ to } 3);$   $\left(1 + \frac{\alpha v_{s}}{\sqrt{n}}\right) \text{ a coefficient allowing for the number of subscribers in a group.}$  N. V. Z.

Card 2/2

RABINOVICH, B.I.; BUKHMASTOV, A.F.

Expediency of the use of differential transformations in electric prospecting. Geol.i geofiz. no.1:122-125 '62. (MIRA 15:4)

1. Novosibirakiy geofisicheakiy trest.
(Electric prospecting)

L 11083-63 EWT(1)/FCC(w)/BDS/T-2/EEG-2/ES(V)--AFFTC/ASD/ESD-3/APGC/SSD--Pe-4/Pi-4/ Po-4/Pq-4--6W ACCESSION NR: AN3003779 S/9029/63/000/163/0003/0003

AUTHOR: Bukhnikashvili, A. (Director, Member, Deputy Chairman)

31

TITLE: Year of the quiet sun

SOURCE: Zarya vostoka, 12 Jul 63, 3, col. 1-7

TOPIC TAGS: IGY, geomagnetic field, telluric current, IQSY

ABSTRACT: A. Bukhnikashvili reports that observations during TOSY have been so planned as to make possible their comparison with results of the IGY. Soviet organizations participating in the TOSY program are being alerted by the Institut zemmogo magnetizma, ionosfery\* i rasprostraneniya radiovoln Akademii nauk SSSR (Institute of Terrestrial Magnetism, Radiowave Propagation, and the Ionosphere, Academy of Sciences SSSR) to so-called universal days and special periods during which selected solar phenomena will be intensively observed. Other areas of concentration during TOSY are the geomagnetic field and telluric currents. In the Soviet Union 28 magnetic observatories and 15 telluric current stations will conduct observations into these phenomena.

Card 1/2

11083-63 CESSION NR: AN300377	· + ho Abostum	eńskaya
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444 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		ute of Geomhysics.
SSOCIATION: Institut	geofiziki AN Gruzinskoy SSR (Instit	Geophysics Committee),
SSOCIATION: Institut	SKTA REOLITATOMOGNETA	P (Committee for
SSOCIATION: Institut N Georgian SSR), Sovet Comitet po provedeniyu Coordination of Activi	geofiziki AN Gruzinskoy SSR (Institution of the Soviet Solid MGSS pri prezidium AN Gruzinskoy States During the IQSY of the Presidium AN Gruzinskoy States During the IQSY of the Presidium ACQ: 16Jul63	P (Committee for
SSOCIATION: Institut	MGSS pri prezidiume AN Gruzinskoy Si ties During the IQSY of the Presidi	SR (Committee for um of the Georgian SSR)
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BUKHNIKASHVILI, A. V. Bukhnikashvili, A. V. "Experimental Investigations of Anomalous Electric Fields in a Solid Medium." Trudy Tbiliskogo Geofizicheskogo Instituta, Tbilisi, vol. 3,

1938, pp. 43-63.

Bukhnikashvili, A. V., and Kebuladze, V. V. "Electrical Prospecting for Cop er Deposits in the Village of Raro." Trudy Thiliskogo Geofizicheskogo Instituta, Thilisi, vol. 4, 1939, pp. 127-153.

DOVUMINAPHAIFI, Y. A. A.

BUKHWIKASHVILI, A. V.

Bukhnikeshvili, A. V. "The Electrical Resistances of Rocks and Ores." Izvestiia Gruzinsk. Industr. Instituta, Tbilisi, No. 12, 1940, pp. 1-31.

BURHIKKHSHVILZ, HI

30758. BUKHINKASHVILI. A. V. AND KEBULADZE, V. V.

K voposu ob organizatsii nablyudeniy sutochnykh i korotkoperiodnykh variatsii zemnykh tokov v dusheti (Gruzinskaya SSR). Izvestiya akad. nauk. SSSR, Seriya geogr. i geofiz., 1949, No. 5, s. 440-54. -- Bibliogr: 19 nazv.

KEBULADZE, V.V.; BUKHNIKASHVILI, A.V.; LASHKHI, A.S.

Organization of station observations on earth electric currents in Dushoti and TSikhisdshvari. Trudy Inst.geofis.AN Grus.SSR 12:5-36 (NIRA 9:9) (Dushoti--Terrestrial electricity) (TSikhisdshvari--Terrestrial electricity)

BUKHNIKASHVILI, A.V.; KEBULADZE, V.V.; CHANTURISHVILI, L.S.

Use of natural electrical fields for the study of non-homogeneity of rock formations. Soob.AN Grus.SSR 14 no.4:205-209 153. (MLRA 7:3)

1. Akademiya Nauk Grusinskoy SSR. Institut geofiziki, Tbilisi. (Prospecting--Geophysical methods) (Electric waves)

USSR/Geophysics - Prospecting

FD 399

Card 1/1

Author

: Bukhnikashvili, A. V. (director of the Institute of Geophysics, Acad Sci Georgian SSR)

Title

: Session devoted to the problems of geophysics and to geophysical methods of prospecting

Periodical

: Izv. AN SSSR, Ser. geofiz. 4, 381-383, Jul/Aug 1954

Abstract

: On 20-22 May 1954 in Tbilisi the Institute of Geophysics, Acad Sci Georgian SSR, held in the Academy of Sciences of Georgian SSR its second session, devoted to problems of geophysics and geophysical methods of prospecting. Participants were representatives of: Geophysics Institute, Acad Sci USSR; Institute of Geological Sciences, Acad Sci Armenian SSR; and scientific and industrial institutions of Georgian SSR. A total of 16 reports were read on magnetology and magnetometry, seismic prospecting, geoelectricity and electric prospecting, and gravimetry, by: A. G. Kalashnikov, Dr. Phys-Math. Sci; M. Z. Nodia, Dr. Phys-Math. Sci; G. P. Berishvili, Cand. Phys-Math. Sci, etc.

Institution

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Submitted

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# HUKHNIKASHVILI, A.V.

Results of measuring earth current variations in the Baraletskaya Basin. Trudy Inst.geefis.AH Grus.SSR 13:91-103 \*54. (MIRA 9:9) (Baraletskaya Basin--Prospecting--Geephysical methods)

BUKHNIKASHVILI, A. V., and KEBULADZE, V. V.

"Effect of Erratic Currents on the Recordings of Local Electric Currents". Soobshch. AN Gruz SSR, 15, No 8, pp 513-516, 1954

Analysis of terrestrial local electric currents carried out during 1950-1952 in the village Tsikhisdzhvari in the Borzhom region revealed that at certain hours the recordings of the latitudinal and longitudinal current component are affected by peculiar pulses generated by erratic currents, originated by the passing of electric trains on the railroad line Khashuri-Borzhom which at the nearest point is only 15 km away. This effect is attenuated if a waterway separates the observing point from the train. (RZhFiz, No 9, 1955)

SO: Sum No 812, 6 Feb 1956

Akademya nauk Gruzinskoy SSR, Institut geofiziki, Tbilisi. Predstavlao deystvitel'nym chelnom Akademii V. D. Kupradze.

USSR/Physics of the Earth - Geophysical Prospecting, 0-5

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36470

Author: Bukhnikashvili, A.

Institution: None

Title: Method of Telluric Currents in Electric Prospecting

Original

Periodical: Metsniyereba da tekhnika, 1955, No 2, 27-30; Georgian

Abstract: A popular discussion of the foundations of the method of earth

currents and in electric prospecting. A short historical review is given of the development of the method and of its present day status. Examples are given of the use of this method under conditions in the Georgian SSR. In 1950 the measurements of earth currents for the purpose of determining the thickness of the lake deposits were carried out in the Baraletskaya basin. Comparison of the results with data obtained by electric drilling in many cases have shown a satisfactory agreement. In 1954 a measurement was made of earth current for the results with autrent for the same and agreement.

was made of earth current for the purpose of investigating the

Card 1/2

#### CIA-RDP86-00513R000307410006-0 "APPROVED FOR RELEASE: 06/09/2000

USSR/Physics of the Earth - Geophysical Prospecting, 0-5

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36470

Abstract: geological structure on large scale along the Voyenno-Georgian road. A geoelectrical cross section, representing the depth geology of the

Card 2/2

# BUKHNIKASHVILI, A.V.

The study of earth currents. Trudy Inst.geofiz.AN Grus.SSR 14: (MIRA 9:9)

1. Institut geofisiki Akademii nauk GSSR, Tbilisi. (Terrestrial electricity)

BUKHNIKASHVIZI, A.V.

BUKHNIKASHVILI, A.

Evgenii Ivanovich Bius. Trudy Inst.geofiz.AN Gruz.SSR 14:237-240 155. (Bius. Evgenii Ivanovich, 1885...) (MIRA 9:9)

15-1957-3-3677 Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3,

pp 171-172 (USSR)

AUTHORS: Bukhnikashvili, A. V., Kebuladze, V. V. の方式の内にはいいないのである。

TITLE: The Question of the Stationary Electrical Field About

Sulfide Deposits (K voprosu o statsionarnosti elektri-

cheskogo polya sul'fidnykh mestorozhdeniy)

ABSTRACT:

Card 1/2

PERIODICAL: Soobshch. AN GruzSSR, 1955, vol 16, Nr 2, pp 109-111

For two and a half months systematic measurements were taken of the potential differences between the two most anomalous points in a natural electrical field produced by an ore deposit (disseminated chalcopyrite ore and nodules of the same mineral in association with pyrite). The electrical field showed a change with time. The deviations from an average value of potential difference ranged from 1% to 17%, and on one occasion reached 29%. At times of deviation, the increase or decrease was not observed to be in any particular direction. The generally used method of closing the measuring circuit during

Akademiya nauk Gruzinskoy SSR, Institut Geofiziki, Tbilisi.

The Question of the Stationary Electrical Field About Sulfide Depos-

the course of a work-day is necessary but insufficient to secure identical conditions for making measurements in all the investigated area. The natural electrical field of sulfide deposits is not constant because of the complications of electrical fields of other sources (ground-water seepage, precipitation, temperature, etc.) or as a consequence of changes in the electrochemical processes at the ore-rock boundary and within the ore body Card 2/2

V. P. Ts.

15-57-1-981

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 1,

p 156 (USSR)

AUTHOR:

Bukhnikashvili, A. V.

TITLE:

An Arrangement for Electrical Exploration of Ore Deposits (K voprosu o metodike postanovki elektro-

razvedki rudnykh mestorozhdeniy)

PERIODICAL:

Soobshch. AN GruzSSR, 1955, Vol 16, Nr 10, pp 775-779.

ABSTRACT:

To judge the effect of using the resistivity method on ore bodies, it is necessary to know not only the mineral composition of the ore and the electrical properties, but also to know the origin of the deposit, the paragenesis of the minerals, and the character of the supergene processes. All these factors affect in different fashion the resistance of an ore-bearing environment to currents passing through it. Also important are the processes of metamorphism of the ore-bearing zone and the hydrothermal alterations of the near-ore rocks.

Card 1/2

An Arrangement for Electrical Exploration of Ore (Cont.)

which may produce an environment with high electrical resistance.

Card 2/2

V. P. Ts.

## BUKHNIKASHVILI, A.V.

Origin of a natural electrical field of an ore deposit.

Rasved.i okh.nedr 21 no.3:37-41 Ny-Je \*55. (MLRA 9:12)

(Ore deposits) (Terrestrial electricity)

### BURHWIRASHVILI, A.V.

Measuring short-period variations of earth currents for purposes of determining the geological structure of a section of the Georgian military road. Isv.AH SSER.Ser.geofis. no.5:609-612 My '56. (MLRA 9:8)

1. Akademiya mauk Grusinskoy SSR, Institut geofiziki. (Georgia--Terrestrial electricity)

# BURHE IKASHVILI A.V.

Data on the use of short-period variations of terrestrial currents for solving problems in structural geology. Trudy Inst.geofis.

AN Gruz.SER 15:75-87 '56. (MIRA 10:7)

(Terrestrial electricity) (Geology, Structural)

BURHNIKASHVILI, A.V.; PRANCISHVILI, G.M.

Experiments in recording seismoelectric effects. Soob.AN Gruz.SSR 17 no.9:789-795 56. (NLRA 10:2)

1. Akademiya nauk Grusinskoy SSR, institut geofisiki, Tbilisi. Predstavleno akademikom A.I.Dshanelidse.
(Torrestrial electricity) (Seismometry)

BUKHNIK ASHVILI, A. V. and KEBULADZE, V. V.

"The Nature of Regional Telluric Currents and Their Relation to Geology."

The International Association of Geomagnetism and Aeronomy; Abstracts of the Reports at teXI General Assembly of the International Union of Geodesy and Geophysics) Moscow, Izd-vo AN SSSR, 1957. 46 p.

Abstract: Telluric currents have interested scientists for a long time but the lack of systematic studies and the irregular distribution of stations prevents definite conclusions. Statistical examination of around-the-clock observations at the Dusheti station (Caucasus), led the authors to the opinion that the potential difference in a telluric field can be devided into the constant and the variable components. The latter depend on the sun's diurnal, seasonal, annual and secular variations as well as the time of occurrence of extremes of these variations. At the same time, the meteorological factors and thetype of electrode grounding play an important part in the creation of a potential. The review analyzes telluric storms and distrubances, their rates, frequencies, and amplitudes. Parallelism of the horizontal component of the magnetic and the

latitudinal component of the telluric fields is fully established. The application of such currents to the study of geological structures in Georgia seems to be particularly successful in determining the depth of the crystalline basement.

SOV/169-59-5-4251

Translation from: Referativnyy zhurnal, Geofizika, 1959, Nr 5, p 1 (USSR)

AUTHOR:

م بنجة المنازي

Bukhnikashvili, A.V.

TITLE:

The Geophysics in Georgia to the 40-th Anniversary of the Great

October (Revolution)

PERIODICAL:

Tr. In-ta geofiz. AS Gruz. SSR, 1957, Vol 16, pp 3 - 36 (res.

Georgian, Engl.)

ABSTRACT:

In the pre-revolutionary times, a series of magnetic, meteorologic and seismic observations was carried out in Georgia (Physical Observatory). In the twenties, the net of the hydrometeorological stations and the amount of work in magnetology and physics of the atmosphere has been widened considerably. Since 1933, the Geophysical Institute has been functioning. The problems of the researches of the Institute are related in the main to the seismology and to the geophysical methods of exploration of mineral

Card 1/2

resources. Moreover, radiometric and gravimetric researches

SOV/169-59-5-4251

The Geophysics in Georgia to the 40-th Anniversary of the Great October (Revolution)

and glaciological explorations are also carried out. Recently, the Institute began the study of the cosmic rays. Moreover, the publishing and the pedagogic activity of the Georgian scientists is described.

N.D.R.

Card 2/2

#### BUKHNIKASHVILI, A.V., red.

[Bighth scientific session devoted to the twenty fifth anniversary of the founding of the Institute; abstracts of reports] Yos mais nauchnaia sessiia, posviashchennaia dvadtsatipiatiletiiu so dnia osnovaniia Instituta; tesisy dokladov, 11-14 dekabria, 1958 g.
Tbilisi, 1958, 147 p. (MIRA 12:12)

1. Akademiya nauk Grusinskoy SSR, Tiflis. Institut geofisiki. (Georgia--Geology)

AUTHORS:

Kharadze, Ye. K., Member,

AS Georgian SSR

30-58-3-8/45

Kebuladze, V. V. Candidates of Physico-Mathematical

Bukhnikashvili, A. Sciences

Otorbayev, K. O. and Babadzhanov, P. B.

TITLE:

According to the Plan of the International Geophysical Year (Po planu mezhdunarodnogo geofizicheskogo goda) Investigations by the Scientists of Georgia, the Kirghiz

Republic and of Tadzhikistan (Issledovaniya uchenykh Gruzii,

Kirgizii i Tadzhikistana)

PERIODICAL:

Vestnik Akademii Nauk SSSR, 1958,

Nr 3, pp. 56-58

(USSR)

ABSTRACT:

The investigations carried out by Georgia are concentrated in the Institute of Geophysics, in the Astrophysical Observatory Abastumani of the AS Georgian SSR, as well as in the institutions

of the administration of the Hydrometeorological Service. The coordination of work is carried out by the Presidential Committee of the AS Georgian SSR under the presidency of

president N. I. Muskhelishvili. The investigation in the fields

Card 1/2

of geomagnetic and geoelectric storms, as well as the

According to the Plan of the International Geophysical Year Investigations by the Scientists of Georgia, the Kirghiz Republic and of Tadzhikistan

30-58-3-8/45

variations of the intensity of cosmic radiation is provided for in the working-plan. These stationary observations are carried out in the Geophysical Observatory Dushet and at the Station for Cosmic Radiation in Tbilisi. The observations are carried out since October 1st 1957 in a ionization chamber of the station Tbilisi. The observatory Abastumani carries out investigations concerning photo- and chromospheric formations on the sun and concerning the physical parameters of the upper atmosphere of the earth. A new telescope for solar investigations was set up in this observatory on the occasion of the Geophysical Year. The collaborators of AS Kirghiz SSR are to solve a series of important problems of modern glaciology by means of the example of glaciation of the Central Tyan'-Shan'. Both stationary and expeditionary investigations are carried out. The astronomic observatory Stalinabad of the AS Tadzhik SSR carries out investigations in the field of meteoric astronomy. The investigations are carried out by means of photographic, radiolocational and visual methods.

Card 2/p

SOV/49 -58-10-1/15

AUTHOR: Bukhnikashvili, A. V.

Twenty-Fifth Anniversary of the Institute of Geophysics of TITLE: the Academy of Sciences of the Georgian SSR (Dvadtsatipyatiletiye instituta geofiziki akademii nauk Gruzinskoy SSR)

PERIODICAL: Izvestiya Akademii Nauk SSSR, seriya geofizicheskaya, 1958, Nr 10, pp 1153-1161 (USSR)

ABSTRACT: This Institute was founded on November 1, 1933. The persons who played a part in the event were P. M. Nikiforov, N. I. Muskhelishvili, M. Z. Nodia and others. The Institute has been reorganized several times since then. At the present time the Institute consists of five departments: geomagnetism and magnetic prospecting, seismology and seismic prospecting, geo-electricity and electrical prospecting, gravimetry and gravitational prospecting, and atmospheric physics. In addition, there are four laboratories: seismometric, regional seismology, radiometric, and a laboratory for the physics of clouds and sediments. The following establishments are also part of the Institute: Dusheti Geophysical Observatory, Tbilisi Cosmic Ray Station, Tbilisi Central Teleseismic Station, and eight regional seismic stations. The scientific work of the Institute has been Card 1/5 concentrated on the following: development of methods of

SOV/49 -58-10-1/15

Twenty-Fifth Anniversary of the Institute of Geophysics of the Academy of Sciences of the Georgian SSR

geophysical prospecting suitable in Caucasian conditions and their practical applications to specific geological problems, general geophysical characteristics of the Caucasus and prediction of earthquakes, seismic studies of the Caucasus, physics of the atmosphere and the hydrosphere, problems in the theory of elasticity which are of importance in seismology. At the present time five problems are being investigated:—1) properties of the earth's electromagnetic field and changes in the cosmic ray intensity, 2) seismic conditions in the Caucasus and its seismic mapping, 3) the structure of the earth's crust and its motion according to geophysical data obtained in the Caucasus, 4) development of methods of geophysical prospecting and their application in the Georgian SSR, 5) physics of clouds and methods of influencing them. The following is a list of specific projects undertaken by the Institute.

Card 2/5

SOV/49.-58-10-1/15

Twenty-Fifth Anniversary of the Institute of Geophysics of the Academy of Sciences of the Georgian SSR

1. Geomagnetism and magnetic prospecting:

New methods of field measurements, local anomalies of the magnetic field in GSSR, micromagnetic studies, secular variation of the earth's magnetic field (M. Z. Nodia, N. A. Katsiashvili, V. S. Matsaberidze, G. P. Berishvili, M. L. Chelishvili and others).

2. Geoelectricity and electrical prospecting:

The earth's electrical field is being investigated at the Dushet Observatory. At this location the magnetic field is normal and electrical noise is almost absent. The results obtained show that the earth current method is very effective in studies of geological structures on a regional scale. This work is being carried out by V. V. Kebuladze, A. V. Bukhnikashvili, A. S. Lashkhi and others. The electrical resistance method is being used by A. V. Bukhnikashvili, V. V. Kebuladze, Sh. M. Chkhenkeli, L. S. Chanturishvili and others. The theory of topographic anomalies for certain simple special cases has been developed by L. S. Chanturishvili and the theory of the electrical field by V. P. Gabuniya.

sov/49 -58-10-1/15

Twenty-Fifth Anniversary of the Institute of Geophysics of the Academy of Sciences of the Georgian SSR

### 3. Gravimetry:

Extensive studies have been carried out of the gravitational field of Georgia (M. S. Abakelia, B. K. Balavadze and others).

Seismic surveys and charts, publication of the 'Bulletin of the Tbilisi Seismic Station', general information services for designers by public works.

## 5. Physics of the Atmosphere.

Meteorological studies, particularly of phenomena associated with hail (which are locally important), studies of

Card 4/5

SOV/49, -58-10-1/15

Twenty-Fifth Anniversary of the Institute of Geophysics of the Academy of Sciences of the Georgian SSR

density, thermal conductivity, mechanical and other properties of snow (A. G. Balabuyev, I. G. Kurdiani, G. K. Sulakvalidze and others).

ASSOCIATION: Akademiya nauk Gruzinskoy SSR, Institut geofiziki (Academy of Sciences of the Georgian SSR, Institute of Geophysics)

Card 5/5

BUKHNIKASHVILI, A.V.

Electric conductivity of rocks and ores of the Caucasus.
Trudy Inst.geofiz.AN Gruz.SSR 17:219-290 58.

(MIRA 13:4)

(Caucasus-Rocks-Electric properties)

### BURNIKASHVILI, A.V.

Apparatus for measuring the natural potential of ore samples. Soob. AN Grus.SSR 21 no.3:281-284 S \$58. (MIRA 12:4)

1. AN Grusser, Institut geofiziki, Tbilisi. Predstavleno akademikom Ye.K. Kharadze. (Prospecting-Geophysical Methods-Equipment and supplies)

AUTHOR: Bukhnikashvili, A.V.

فيكا تناف شرده

TITLE:

Scientific Session on the 25th Anniversary of Founding

the Institute of Geophysics, Ac.Sc., Georgian SSR

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1959, Nr 8, pp 1255-1258 (USSR)

The session took place on December 11-14, 1958 in In his opening speech Professor M. Z. Nodia ABSTRACT: gave a short description of the history of the Institute. The following papers were read at the plenary meeting: Ye. I. Byus "On seismic" investigations of the Caucasus", V. V. Kebuladze "The Institute's participation in the I.G.Y.",

A. V. Bukhnikashvili "Effects of artificial actions on

meteorological phenomena", B. K. Balavadze "Gravimetric () research in the Caucasus", B. Yu. Levin "Shmidt's theory on the origin of the Earth". 12-The papers read in the Section on magnetometry, electrometry and gravimetry (chairmen: M. Z. Nodia and B. K. Balavadze) were as follows: Professor A. G. Kalashnikov "On the distribution of a normal magnetic field and "On a simultaneous formation of a geomagnetic field and earth currents in the USSR", Card 1/5

Scientific Session on the 25th Anniversary of Founding the Institute of Geophysics, Ac.Sc., Georgian SSR

Professor B. M. Yanovskiy "Methods of absolute determination of the Earth's magnetism based on the nucleus resonance",
M. 2. Nodia, G. P. Berishvili and V. S. Matsaberidze "On
centenary variations of the magnetic field in Georgia",
V. Orlov "On centenary variations of the magnetic field | L in Central Asia", V. I. Afanas'yeva "Magnetic storms in 1949-1956", Ts. G. Akopyan "Magnetic field in the Armenian SSR", L. V. Vekua "Direction of magnetization vector of rocks", A. P. Bondarenko "Relationship between telluric currents" and magnetic elements", V. G. Dubrovskiy "Fast geoelectric" and geomagnetic variations in Ashkhabad", V. A. Troitskaya "Micro-magnetic storms" and their effect on shortwave vibrations", Sh. M. Chkhenkeli "On results of radiometric investigations of mineral resources in Georgia carried out by the Institute of Geophysics, Ac.Sc., Georgian SSR", S. A. Kraskovskiy "On the geothermal gradient of continental mountains", M. S. Abakelia "Geological structure of the Crimea depressions", Card 2/5 Sh. S. Oganesyan "Density of Armenian rocks",

G. Sh. Shengelay "Geological structure of the West

Scientific Session on the 25th Anniversary of Founding the Institute of Geophysics, Ac.Sc., Georgian SSR

Kurinsk depression", G. D. Managadze "Determination of a discontinuity based on density variations with depth", V. G. Abashidze "Temperature determination by means of quartz gravimeters" LA. V. Bukhnikashvili "Effect of oxidising zone on the formation of a local electric field", B. S. Enenshteyn "Dipole electromagnetic" sounding", L. S. Chanturishvili "Corrections for earth surface irregularities in electrosurvey", Sh. M. Chkhenkeli, M. S. Abakelia, V. S. Matsaberidze and G. G. Tabagua "Results of geophysical survey of the Poladaursk iron ore deposits". The following papers were read in the Section on seismology and seismosurvey (chairman: Professor Ye. I. Byus): Ye. F. Savarenskiy "On an apparent velocity of seismic" waves in the Caucasus", D. I. Sikharulidze "Dispersion of Love waves", T. I. Kukhtikova "Dynamic characteristics of Nureksk (Tajik SSR) earthquakes" Yu. V. Riznichenko "Sonic methods in seismic zoning", I. S. Berzon "High frequency waves in seismic survey", G. K. Tvaltvadze

Card 3/5 "Earth's crust in Georgia", M. M. Rubinshteyn "Geological 12

Scientific Session on the 25th Anniversary of Founding the Institute of Geophysics, Ac.Sc., Georgian SSR

criteria in the seismic zoning of Georgia", V.I.Safaryan Weseismic micro-zoning of towns and waterways", V. G. Papalashvili and M. S. Ioseliani "Seismic and tectonic research in the High Caucasus", Ye. A. Rozova "Weak parts of the Earth's crust in Central Asia", R. D. Nepesov and M. Kurbanov "Gravitational' anomalies in Central Asia", A. D. Tskhakaya "On the distribution of seismic'stations in the Caucasus", I. I. Popov "Some seismic observations in the Crimea", The papers read in the Section on atmospheric physics (chairman: Doctor of Mathematical-Physical Sciences A. G. Balabuyev) were as follows: A. G. Balabuyev "Caucasus in the world climato-genetic chart", A. M. Okudzhav "Frozen ground under a cover of humid snow" G. K. Sulakvelidze "Effect of wind's12 vertical component on formation of showers and hail", Ye. Ya. Gdzelishvili "Short period forecast of a strong wind in Georgia", G. V. Rozenberg "Sunlight in the midst of cloud", T. G. Megrelishvili "Measurements of twilight" L. M. Fishkova "Hydrogen in the upper atmosphere",

Scientific Session on the 25th Anniversary of Founding the Institute of Geophysics, Ac.Sc., Georgian SSR

I. G. Kurdiani "Analysis of observations from an aircraft",

A. I. Zaborovskiy "Generated potentials in rocks",

V. F. Bonchkovskiy "Prognosis of earthquakes",

A. M. Yepinat'yeva "Correlation method of determining

diffracted waves".\V

V. I. Keylis-Borok, Ye. V. Karus, M.S. Shelkovnikov and

others were unable to take part in the Session.

Card 5/5

KHIZANASHVILI, Georgiy Davidovich; BUKHNIKASHVILI, A.V., red.; AHRAMISHVILI, T.A., red.izd-va; KIKNADZE, I.V., tekhn.red.

> [Dynamics of the earth's axis of rotation and of ocean levels] Dinamika semmoi osi vrashcheniia i urovnei okeanov. Toilisi, Gos.izd-vo uchebno-pedagog.lit-ry "TSodna, " 1960. 140 p. (MIRA 14:1)

(Barth) (Ocean)

BURHNIKASHVILI, A.V.; KEBULADZE, V.V.; KESHKHI, A.S.

Results of experiments with the telluric current method in the Kartlian Plain. Trudy Inst. geofis. AN Grus. SSR 18:32-42 \*60.

(MIRA 13:10)

(Kartlia-Blectric prespecting)

Electrotelluric surveying in eastern Georgia using long-period variations. Trudy Inst. geofiz. AN Gruz. SSR 19:127-138 '60.

(Georgia--Electric prospecting)

BUKHNIKASHVILI, A.V.; ABAKELIA, M.S.

Mikhail Zosimovich Nodia; on his 70th birthday and 45th anniversary of his scientific and pedagogical activities. Trudy Inst. geofiz. AN Gruz. SSR 19:259-264 60. (MIRA 14:9) (Nodia, Mikhail Zosimovich, 1891-)

KURDIANI, I.R.; BUKHNIKASHVILI, A.V.

Anatolii Georgievich Balabuev; on his 70th birthday and 45th anniversary of his scientific and pedagogical activities. Trudy Inst. geofiz. AN Gruz. SSR 19:265-267 60. (MIRA 14:9) (Balabuev, Anatolii Georgievich, 1889-)

S/169/62/000/006/032/093 D228/D304

AUTHORS:

Bukhnikashvili, A. V., Dzhashi, G. G. and Khvitiya,

G. P.

TITLE:

Some peculiarities of the local natural electric

field in the example of the Adzharskoye polymetal deposit in the Georgian SSR

PERIODICAL:

Referativnyy zhurnal, Geofizika, no. 6, 1962, 30, abstract 6A226 (Izv. AN SSSR, Ser. geofiz, no. 10,

1961, 1533-1537)

TEXT: Some characteristic peculiarities of the Adzharskoye polymetal deposit's natural electric field are considered. It is noted that as a result of surveys made in adits, the following characteristic features of this electric field are revealed: 1) The magnitude of the electric potential is directly proportional to the concentration of ore minerals; 2) the local electric field is characterized by regular diurnal variations, which appear to be due to - the superimposition of telluric current fields: 3) an increase in Card 1/2

Some peculiarities of ...

S/169/62/000/006/032/093 D228/D304

the solution pH usually leads to a decrease in the value of the electric field's intensity; 4) the abundant precipitation lowers the electric field's intensity, since the content of the  $S0_4^2$  anion decreases. It is noted that measurements were made at points in an adit and at the epicenters of these points on the surface in order to verify the absorption of the natural electric field with depth. The convergence of the resulting curves is observed. It is concluded from their comparison that the depth of sirveying by the natural electric field method does not appear to exceed 100 m. Abstractor's note: Complete translation 7 ter's note: Complete translation. 7

Card 2/2

BUKHNIKASHVILI, Aleksandr Vardenovich, kand. fiziko-matem. nauk, starshiy nauchmy sotr.; KEBULADZE, V.V., red.; KVARIANI, E.A., red. izd-va; BOKERIYA, Ye.B., tekhn.red.

[Electric prospecting in mining geology in Transcaucasia] Elektrorazvedka v rudnoi geologii Zakavkaz'ia. Tbilisi, Izd-vo Akad. nauk Gruzinskoi SSR, 1962. 177 p.

1. Institut geofiziki Akademii nauk Gruzinskoy SSR (for Bukhnikashvili).

(Transcaucasia—Electric prospecting) (Transcaucasia—Ore deposits)

BERDICHEVSKIY, M.N.; CHERNYAVSKIY, G.A.; BUKHNIKASHVILI, A.V.; GUGUMAVA, G.Ye.; KEBULADZE, V.V.; LASHKHI, A.S.

Results of magnetotelluric investigations in Georgia. Razved. i okh. nedr 30 no.4:35-39 Ap '64. (MIRA 17:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki (for Berdichevskiy, Chernyavskiy). 2. Institut geofiziki AN GruzSSR (for Bukhnikashvili, Gugunava, Kebuladze, Lashkhi).

ABAKELIYA, M.S.; BUKHNIKASHVILI, A.V.; TABAGUA, G.G.; KHVITIYA, G.P.; DZHASHI, G.G.

Use of electric prospecting at the Chiatur manganese deposit. Trudy Inst. geofiz. AN Gruz. SSR 21:99-120 '63.

(MIRA 18:12)

BUKHNIKASHVILI, A.V., red.; KARTSIVADZE, A.I., red.

[Transactions of the All-Union Scientific Conference on Active Modification of Hail Processes]Trudy Vsesoiuznoge nauchnege soveshchania po aktivnym vozdeystviiam na gradovye protsessy. "bilisi, In-: nauchn-tekhn. informatsi. i propagandy, 1964. 345 p. (MIRA 18:12)

1. Vsesoyuznoye nauchneye soveshchaniye po aktivnym vozdeystviyam na gradovyye protsessy, 1962. Tbilisi.

BUKHNIKASHVILI, G.
Gruzinskiy teatr za cto let (The Georgian theater during 100 years)
Tbilisi, "Zarya Vostoka", 1950.
101 p.
Bibliography: p. 101-102
So: 31N/5
888
.b9

BURHNIKHSHVILT Q.

BUKHNY, A.F. (Moskva, A8, Krasnostudencheskiy proyezd, d.20, kv.22)

Epiphysiolysis of the proximal end of the tibia. Ortop., travm. i protez. 25 no.1:27-33 Ja '64. (MIRA 17:9)

1. Iz kliniki travmatologii detskogo vozrasta (zav. -kand.med. nauk N.G.Dam'ye) TSentral'nogo instituta travmatologii i ortopedii (dir. - chlen-korrespondent AMN SSSR prof. M.V.Volkov) na baze detskoy gorodskoy bol'nitsy No.20 imeni Timiryazeva, Moskva.

BUKHNY, A.F.; KAUSHANSKAYA, P.V.

Late congenital brittleness of bones in a 17-year-old patient. Ortop., travm. i protez. 21 no.8:74 Ag '60. (MIRA 13:11)

1. Is khirurgicheskogo otdeleniya bol'nitsy No.2 (glavnyy vrach - Ya.M.Klyavin) g.Klin.
(BONES-DISEASES)

SANIN, V.G.; BUKHNY, A.F.

Perforations of ulcers of the stomach into the pleural cavity.

Khirurgiia 37 no.2:125-127 F '61. (MIRA 14:1)

1. Iz khirurgicheskogo otdeleniya (zav. A.M. Shakhova) Klinskoy gorodskoy bol'nitsy No.2 (glavnyy vrach Ia.M. Klyavin) Moskovskoy oblasti.

(PEPTIC ULCER) (PLEURA-DISHASES)

## BUKHNY, A.F.

Fractures of the olecranon in children and their treatment.
Ortop., trava. i protez. no.8:10-13 '62. (MIRA 17:10)

1. Iz otdeleniya detskoy travmy TSentral'nogo instituta trav-matologii i ortopedii (dir.- doktor med. nauk M.V. Volkov) na baze detskoy gorodskoy bol'nitsy No.20 imeni Timiryaze va (nauchnyy rukovoditel' bazy - kand. med. nauk N.G. Dam'ye), Moskva.

## BUKHNY, A.F.

Case of avulsion of the anterior cruciform ligament. Ortop., travm. i protez. no.1:65 '63. (MIRA 16:10)

1. Iz kliniki detskoy travmatologii (zav. - kand.med.nauk M.G. Dam'ye) TSentral'nogo instituta travmatologii i ortopedii (dir. - prof. M.V.Volkov).

BUKHNY, A.F. (Moskva A-8, Krasnostudencheskiy proyezd, d.20,kv.22)

Fractures of the intercondylar eminence of the tibia in children and their treatment. Ortop., travm. i protez. 24 no.3:39-43 Mr 163. (MIRA 17:2)

l. Iz otdeleniya travmatologii (zav. - kand. med. nauk N.G. Dam'ye) TSentral'nogo instituta travmatologii i ortopedii (dir. - prof. M.V. Volkov) na baze detskoy gorodskoy bol'nitsy No.20 imeni Timiryazeva.

BUKHNY, A.F., kand. med. nauk (Moskva, Krasnostudencheskiy proyezd, dom 20,kv.22)

Transverse line of the growth following lesion of the distal epiphysial cartilage of the tibia. Ortop., travm. i protez. 26 no. 10:75 0 '65. (MIRA 18:12)

1. Iz travmatologicheskogo otdeleniya detskoy gorodskoy bol'nitsy No. 20, Moskva. Submitted Febr. 16, 1965.

BUKHONIN, D.Ya.

We can be useful. Weftianik 5 no.9:26 S '60. (MIRA 13:9)

1. Predsedatel soveta pensionerov neftepromyslovogo upravleniya Tuymazaneft.

(Pensioners)

BUKHON'KO, G.A., student

Technology of using rocks extracted during coal mining. Trudy RISI no.4:88-102 55. (MIRA 12:1)

1. Vysshiye inzhenernyye kursy Rostovskogo-na-Donu inzhenernostroitel'nogo instituta.
(Building materials)

· USSR / Human and Animal Morphology, Normal and Patho- S-7 logic -- Pathologic Anatomy

Abs Jour: Ref Zhur-Biol., No 13, 1958, 59940

Author : Bukhonova, A. I.

Inst : Not Given

Title: The Microscopic Picture of Wound Exudate Under Conditions of Castration and the Administration of the Sex Hormone

Orig Pub: Probl. endokrinal. i gormonoterapii, 1956, 2, No 3, 81-87

Abstract: By taking impressions, the author studied the changes in the wound exudate after castration and the administration of methyltestosterone (I) or Thy-

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Card 1/3

USBR/ Human and Animal Morphology, Normal and Pathologic -- Pathologic Anatomy

S-7

Abs Jour: Ref Zhur-Biol., No 13, 1956 59940

roidin [dessicated thyroid preparation] (II) before the operation in experiments on rabbits, guinea pigs and rats. As early as 4 hours after the operation, the number of lymphocytes in the wound exudate of the castrated animals increased, while the number of neutrophils decreased; these changes were most pronounced in the rats. In the guinea pigs, the administration of I restored the normal number of polyblasts, the content of which was decreased by castration. This effect was more weakly expressed in the rats and rabbits. Under the influence of II, the number of polyblasts greatly increased in the rabbits and guinea pigs. Castration caused the polyblasts to become smaller, but their original size was restored by the administration of I, while

Card 2/3

- USSR / Human and Animal Morphology, Normal and Patho- S-7 logic -- Pathologic Anatomy

Abs Jour: Ref Zhur-Biol., No 13, 1958, 59940

they became even somewhat larger than originally after the administration of II. The author notes the reversible character of the changes caused by castration and the pronounced stimulation of the macrophage system effected by II even in castrated animals. -- A. I. Braude

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Card 3/3

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BUKHONOVA, A.I. (Voronezh)
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Wound healing and cellular content of the exudate during the administration of cortisone and ACTH. Problemack, i gorm. 4 no.2:9-13 Mr-Ap '58 (MIRA 11:5)

1. Is kafedry gistologii i embriologii (zav. - prof. A.A. Voytkevich) Voronezhskogo meditsinskogo instituta.

(WOUNDS AND INJURIES, experimental eff. of ACTH & cortisone on healing & on cell content in exudate (Rus))

(GORTISONE, effects

on healing of exper. wds. & on cell content in exudate (Rus))

(ACTH, effects

on healing of exper. wds. & on cell content in exudate (Rus))
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BUKHONOVA, A.I.

CONTROL OF THE PROPERTY OF THE

Readers' conference. Problemdok. 1 gorm 4 no.4:126 Jl-Ag 58
(ENDOCRINOLOGY-PERIODICALS)

AUTHORS:

Voytkevich, A. A., Bukhoneva, A. I. SOV/20-120-4-63/67

TITLE:

Hypersegmentation of Neutrophilic Nuclei in .: Wound Exsudate Occurring Under the Influence of the Adrenal Cortex Hormone and Radiation (Gipersegmentatsiya yadra neytrofilov v ranevom ekssudate pod vliyaniyem gormona kory nadpochechnykh zhelez i luchistoy

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 4,

pp. 914 - 917 (USSR)

ABSTRACT:

In this paper data are given concerning the influence of X-ray radiation in the first stage of inflammation. The manifestation of this reaction is an exudation and an immigration of special leucocytes to the focus of injury. X-ray radiation in this case gave a special stimulus whereas the adrenal cortex hormone was either introduced from outside or cortisone came from the own adrenal gland. It had been activated by the adreno-corticotrope hormone of the hypophysis (ACTH). In the first test group 22 white rats and 30 guinea pigs were used for the experiments. Half

Card 1/3

the number of animals was irradiated. A piece of skin from the side of the body was removed from the experimental and control

Hypersegmentation of Neutrophilic Nuclei in a Wound SOV/20-120-4-63/67 Exsudate Occurring Under the Influence of the Adrenal Cortex Hormone and Radiation

animals ( 1 x 1 cm in the case of rats, 2 x 2 cm in the case of guinea pigs). Replicas of the open wound surface were made after 4, 24, 48 and 72 hours (Ref 2). Under the influence of the X-ray irradiation 3 days before the removal of skin the exudation became weaker and the number of neutrophiles emigrating to the focus of the wound was reduced. In the second experimental group (26 rats, 27 guinea pigs) the influence of cortisone (5 mg per animal) and of ACTH was investigated. After 24 hours the difference between the 2 experimental groups and the control group increased further. Differences were observed between rats and guinea pigs which are due to differences in their species. The results obtained showed that the increase in concentration of the adrenal cortex hormone in the organism increases the segmentation of the neutrophilic leucocytes for a short period (Tables 1b, c) under the influence of a special irritation (removal of skin or introduction of cortisone). Up to now this has never been reported in publications. From latest endocrinological investigations it is known that the increase of leucocytes in the blood is as characteristic

Card 2/3

SOV/20-120-4-63/67 Hypersegmentation of Neutrophilic Nuclei in a Wound Exsudate Occurring Under the Influence of the Adrenal Cortex Hormone and Radiation

> of the effect of cortisom as the reduction of eosinophiles (Refs 5,6). The number of special leucocytes in the wound exudate decreases, however, considerably especially in the initial stage of inflammation. This process apparently takes place in connection with the reduction of the permeability of the wall of blood vessels under the influence of cortisone or ACTH. There are 2 figures, 1 table, and 12 references, 9 of which are Soviet. Voronezhskiy meditsinskiy institut (Voronezh Medical Institute)

ASSOCIATION: PRESENTED:

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USSR

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1. Wounds-Therapy 2. Wounds-Effects of radiation 3. X-rays -- Physiological effects 4. Leukocytes--Stimulation 5. ACTH -- Physiological effects 6. Adrenal cortical extract -- Physiological effects

Card 3/3

VOYTKEVICH, A. A., BUKHONOVA, A. I.

"The Effect of Cortisone and Acth on the Kpp Reparative Process Depending on the Experimental Conditions and the Age of Animals."

Theses of the Proceedings of the Annual Scientidic Sessions 23-26 March 1959 (All-Union Institute of Experimental Endocrinology)

From the Chair of Histology (Head--distinguished man of science, Professor A. A. Voytkevich) of the Voronezh Medical Institute

VOYTKEVICH, A.A.; BUKHONOVA, A.I.; BERIOVA, Z.D.; GERSHEVITSKAYA, R.T.;
SHEBEKO, O.D.

Effect of adrenaline on regenerative processes in normal and castrated animals. Biul. eksp. biol. med. 47 no.2:124-128 F '59. (MIRA 12:4)

1. Iz kafedry gistologii i embriologii (sav. - prof. A.A. Voytkevich)
Voronezhskogo meditainskogo instituta (dir. - prof. N.I. Odnoralov).

Predstavlena deystvitel'nym chlenom AME SSSR V.V. Parinym.

(REGENERATION,
eff. of epinephrine in normal & castrated animals (Rus))

(CASTRATION, eff.
on gegen. reactions to epinephrine (Rus))

(EPINEPHRINE, effects,

on regen. in normal & castrated animals (Rus))

17(1) AUTHOR:

Bukhonova, A. I.

507/20-124-2-66/71

TITLE:

Reparative Processes in the Skin of Young Dogs Treated With Cortisone and the Hormonal Biocatalyst of the Adrenal Cortex (Reparativnyye protsessy v kozhe molodykh sobak pri vvedenii kortizona i gormonal nogo nachala kory nadpochechnika)

PERIOI ICAL:

Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 2, PP 477 - 480 (USSR)

ABSTRACT:

The suppressing effect of cortisone and of the biocatalyst mentioned last in the title (ACTH) upon the activity of mesenchyme cells and the physiological permeability of animal membranes is well-known (Refs 1, 6, 9). In blood the number of lymphocytes and eosinophiles decreases, whereas the number of neutrophiles increases (Refs 5, 7, 11). The author was interested in the problem in how far the characteristic effect of the mentioned hormones acts upon the connective tissue elements during the process of healing of the skin and the simultaneous inflammation reaction. As experimental animals 21 whelps of 4 litters were used (4, 5, 6 and 6 whelps). In young animals the effect of the sex hormone embarrasses the

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Reparative Processes in the Skin of Young Dogs Treated SOV/20-124-2-66/71 With Cortisone and the Hormonal Biocatalyst of the Adrenal Cortex

activity of the cells with a phagocytic function (Ref 3). In all cases a square-shaped part of skin was cut out from the dogs' side and back (2.5 times 2.5 cm). The preparations were introduced twice a day: in the morning and evening. The healing of the wounds of the experimental animals was less good than normally, especially in the case of treatment with cortisone (Table 2). Impressions of the wound exsudate showed already after 8 hours deviations with respect to the manifestations of the inflammatory process in the case of animals treated with hormones (Table 3). Figures 1-3 show microphotographs of the region of the healing wound. Summarizing, it can be said that as a result of the treatment with the mentioned hormones the morphological components of the inflammatory reaction undergo a change as well as the initial stages of tissue regeneration. The migration of neutrophiles into the sphere of injury is slowed down, although in the blood smears of the same animals the number of neutrophiles had increased. The amount of lymphocytes had simultaneously decreased. Both hormone preparations embarrass the formation of the granulation tissue and accelerate its development and growing old as well

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Reparative Processes in the Skin of Young Dogs Treated SOV/20-124-2-66/71 With Cortisone and the Hormonal Biocatalyst of the Adrenal Cortex

as the transformation into a hardened connective tissue with extremely developed collagen structures. Further, the differentiation of the young epithelial layer is altered by a stimulation of early and extremely intensive processes of cornification. There are 3 figures, 3 tables, and 11 references, 9 of which are Soviet.

ASSOCIATION:

Voronezhskiy gosudarstvennyy meditsinskiy institut

(Voronezh State Medical Institute)

PRESENTED:

September 26, 1958, by N. N. Anichkov, Academician

SUBMITTED:

July 2, 1958

Card 3/3

BUKHONOVA, A. I., Cand Biol Sci -- (diss) "Reparative process under the influence of cortisone and other hormonal substances." Voronezh, copies; price not given; (KL, 22-60, 134)

BUKHONOVA, A.I. (Voronezh)

Hormonal system of the pituitary body and the adrenal cortex and regenerative processes. Fiziol. zhur. 46 no. 4:101-118 Ap \*60.

(ADRENAL CORTEX) (PITUITARY BODY) (REGENERATION (BIOLOGY))

BUKHONOVA, A.I.

Effect of different concentrations of hormones of the adrenal and thyroid glands on histofunctional changes in wounds. Dokl. AN SSSR 134 no.5:1256-1259 0 60. (MIRA 13:10)

1. Voroneshskiy gosudarstvennyy meditsinskiy institut. Predstavleno akademikom N.N.Anichkovym.

(THYROIDIE) (CORTISONE) (WOUNDS)

BURNOVA, A.I.

Cytohistochemical changes in an experimental wound under the action of various adrenocortical hormones. Dokl. AN SSSR. 144 no.6:1406-1409 Je 162. (MIRA 15:6)

1. Voronezhskiy gosudarstvennyy meditsinskiy institut. Predstavleno akad. N.N.Anichkovym.

(ADRENOCORTICAL HOPMONES) (WOUNDS)